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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,275	11/10/2003	Tetsuo Ikegame	02653/LH	4910
1933	7590	05/24/2005	EXAMINER	
FRISHAUF, HOLTZ, GOODMAN & CHICK, PC			ROBINSON, MARK A	
767 THIRD AVENUE			ART UNIT	
25TH FLOOR			PAPER NUMBER	
NEW YORK, NY 10017-2023			2872	

DATE MAILED: 05/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/705,275	Applicant(s) IKEGAME ET AL.	
	Examiner Mark A. Robinson	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2005.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) 13-20 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-12 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 10 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/1/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of the species shown in fig. 1 in the reply filed on 4/13/05 is acknowledged. This reply stated that claims 1-20 read on the elected species. However, in a telephone conversation with Robert Michal on 4/15/05, it was confirmed that only claims 1-12 read on the elected species shown in fig. 1. Accordingly, claims 1-12 will be examined as follows.

Claims 13-20 are withdrawn from consideration as being drawn to non-elected subject matter.

Claim Objections

2. Claims 1-12 are objected to because of the following informalities. Appropriate correction is required.

In claim 1 line 5 "the" appears to be missing after "including," and in line 6 it is unclear what "this" refers to. For examination, "this" is taken to refer to the deflection element.

In claim 3 the phrase "is provided in neighborhood" is awkward and should be clarified.

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In claim 5 line 4 "the projections of the fixing portion" lacks antecedent basis.

In claim 7 line 2 there appears to be a term missing after "member."

In claim 8 "the reflection action" and "the refraction action" lack antecedent basis.

In claim 9 line 3 "installed in periphery of the coil" is awkward and should be clarified.

In claim 10 line 2 there appears to be a term missing after "at."

In claim 12 line 1 "the coil" lacks antecedent basis.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 7, 8 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Dragt (US 4123146).

Dragt shows a deflection device including a deflection element(2), a drive portion(11,19), a fixing portion(1)

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supporting and fixing the deflection element, a movable portion including the deflection element(2), a support member connected with the fixing portion for supporting the deflection element (note the connection between mirror(3) and fixing portion(1) or the arrangement shown in fig. 3), and a rubber damping member(6) between the movable portion and the fixing portion, wherein the damping member is provided in a vertical direction relative to the deflecting plane at the center of the rear side of the movable deflection element. Dragt further shows a projection(5) extending to the rear side of the deflection member, with the damping member between the movable portion and this projection, and a frame member(7) directly supporting the deflection element.

5. Claims 1-6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Chandler (US 5280377).

Chandler shows a deflection device including a deflection element(60), a drive portion(64,78), a fixing portion(66) supporting and fixing the deflection element, a movable portion including the deflection element(60), a support member connected with the fixing portion for supporting the deflection element (note the connection between mirror(60) and fixing portion(66)), and a damping member(70) having a cylindrical shape (see fig. 6)

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between the movable portion and the fixing portion, wherein the damping member is provided in a vertical direction relative to the deflecting plane at the center of the rear side of the movable deflection element. Chandler further shows a projection(68) extending to the rear side of the deflection member, with the damping member between the movable portion and this projection.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dragt in view of Chandler.

Dragt does not show the damping member to include a cylindrical shape. However, Chandler shows a damping member with such a shape as noted above. It would have been obvious to the ordinarily skilled artisan at the time of invention to include a cylindrical shape to the damping member of Dragt in

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order to provide a restoring force to the deflection member if desired as taught by Chandler.

8. Claims 9,10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dragt in view of Ikegame (US 6038088).

Dragt teaches the drive portion to include a coil and magnet, but teaches the reverse of the claimed arrangement, i.e. Dragt does not teach the coil to be associated with the deflection element (built into the frame member) with the magnet outside the periphery of the coil. However, this arrangement is well known and an example is shown by Ikegame (note coil 37 in the frame of the deflection member, and magnet 39). It would have been obvious to the ordinarily skilled artisan at the time of invention to use Ikegame's drive arrangement in Dragt's device, since it has been held that a mere reversal of the working parts of a device involves only routine skill in the art. Note that such a modification would prove beneficial since it would reduce the weight of, and thus the necessary driving force for the mirror.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chandler.

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Chandler does not teach the damping member to be made of one of the claimed materials. However, damping members including one of these materials are well known in the art. It would have been obvious to the ordinarily skilled artisan at the time of invention to use one of the claimed materials as art-recognized equivalents to Chandler's damping member material as a means to reduce unwanted oscillations and/or vibrations.

10. Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chandler in view of Ikegame.

Chandler teaches the drive portion to include a coil and magnet, but teaches the reverse of the claimed arrangement, i.e. Chandler does not teach the coil to be associated with the deflection element (built into the frame member) with the magnet outside the periphery of the coil. However, this arrangement is well known and an example is shown by Ikegame (note coil 37 in the frame of the deflection member, and magnet 39). It would have been obvious to the ordinarily skilled artisan at the time of invention to use Ikegame's drive arrangement in Chandler's device, since it has been held that a mere reversal of the working parts of a device involves only routine skill in the art. Note that such a modification would prove beneficial since

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it would reduce the weight of, and thus the necessary driving force for the mirror.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Burroughs, Dalziel, Frank, Yoshitoshi, and Volleau all show damping members associated with deflection elements.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Robinson whose telephone number is (571) 272-2319.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn, can be reached at (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

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information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MR

5/20/05


MARK A. ROBINSON
PRIMARY EXAMINER